BPA Heat Pump and VRF Specification*

Effective 4/1/2017

Measures: Heat Pump Upgrade (BPA Qualified) and Heat Pump Conversions (BPA Qualified)

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E	C'	_				
Equipment	Size	Section				
Type	Category	Туре	Subcategory	Tier 1	Tier 2	Test Procedure
	<65,000	All	Split System	15 SEER	16 SEER	AHRI
	Btu/h		Single Package	15 SEER	16 SEER	210/240
		Electric	Split System		13.6 IEER	
	≥65,000	Resistance	and	12.2 IEER		
	and	(or None)	Single Package			
	<135,000		Split System			
	Btu/h	All Other	and	12 IEER	13.4 IEER	
			Single Package			
Air Cooled		Electric	Split System			
(Cooling	≥135,000	Resistance	and	11.6 IEER	N/A	
	and	(or None)	Single Package			AHRI 340/360
Mode)	<240,000	All Other	Split System		N/A	
	Btu/h		and	11.4 IEER		
	,		Single Package			
		Electric	Split System		N/A	
	≥240,000	Resistance	and	10.6 IEER		
	and	(or None)	Single Package		,	
	<760,000	(6. 116.16)	Split System			
	Btu/h	All Other	and	10.4 IEER	N/A	
	Бій/П		Single Package	2011.2211		
	<65,000	_	Split System	8.5 HSPF	9 HSPF	AHRI
	Btu/h	_	Single Package	8.2 HSPF	8.2 HSPF	210/240
	Bta/II		47°F db/43°F	0.2 11311	0.2 1131 1	210/240
	≥65,000		wb	3.4 COP	N/A	
	and	_	Outdoor Air	3.4 CO	IN/ A	
Air Cooled, (Heating	<135,000		17°F db/15°F			
	8tu/h	-	wb	2.4 COP	N/A	AHRI
				2.4 COP		
Mode)			Outdoor Air 47°F db/43°F			340/360
,	≥135,000			2.2.600	NI/A	340/300
	and	-	wb	3.2 COP	N/A	
			Outdoor Air			
	<240,000		17°F db/15°F	2.4.600	N1 / A	
	Btu/h	-	wb	2.1 COP	N/A	
147.1			Outdoor Air			
Water	425.000		068.5			
Source	<135,000	All	86° Entering	14 EER	N/A	ISO-13256-1
(Cooling	Btu/h		Water		,	
Mode)						
Water						
Source	<135,000	_	68° Entering	4.6 COP	N/A	ISO-13256-1
(Heating	Btu/h		Water		,,,	.55 13130 1
Mode)						

SEER—Seasonal Energy Efficiency Ratio EER—Energy Efficiency Ratio HSPF— Heating Seasonal Performance Factor wb—Wet Bulb IEER—Integrated Energy Efficiency Ratio COP—Coefficient of Performance db—Dry Bulb



Measure: Variable Refrigerant Flow System (BPA Qualified)

Variable Refrigerant Flow Multisplit A	Air-conditioner Specification
variable nerigerant riow withinspire	Mi-conditioner Specification

Equipment	Size	Heating Section				
Туре	Category	Туре	Subcategory	Tier 1	Tier 2	Test Procedure
VRF Air Cooled (Cooling Mode)	<65,000 Btu/h	All	Multisplit System	15 SEER	16 SEER	
	≥65,000 and <135,000 Btu/h	Electric Resistance (or None)	Multisplit System	14.9 IEER	N/A	AHRI 1230
	≥135,000 and <240,000 Btu/h	Electric Resistance (or None)	Multisplit System	14.4 IEER	N/A	
	≥240,000 Btu/h	Electric Resistance (or None)	Multisplit System	13 IEER	N/A	

Variable Refrigerant Flow Multisplit Heat Pump Specification

		Heating				
Equipment	Size	Section				
Туре	Category	Type	Subcategory	Tier 1	Tier 2	Test Procedure
VRF Air Cooled (Cooling	<65,000	All	Multisplit System	15 SEER	16 SEER	
	Btu/h					
	≥65,000	Electric	Multisplit System	14.2 IEER	N/A	
	and	Resistance	Multisplit System	14 IEER	N/A	
	<135,000	(or None)	with Heat Recovery			
	≥135,000	Electric	Multisplit System	13.7 IEER	N/A	
Mode)	and	Resistance	Multisplit System	13.5 IEER	13.5 IEER N/A 12.5 IEER N/A	
Wiode	<240,000	(or None)	with Heat Recovery			
	≥240,000 Btu/h	Electric	Multisplit System	12.5 IEER		
		Resistance	Multisplit System	12.3 IEER	N/A	
	,	(or None)	with Heat Recovery	12.0		
	<65,000	-	Multisplit System	8.5 HSPF	9.0 HSPF	
	Btu/h ≥65,000		4705 11 /4205 1			AHRI 1230
		- /h _	47°F db/43°F wb	3.4 COP 2.4 COP 3.2 COP	N/A	
Air Cooled,	and		Outdoor Air			
(Heating	<135,000		17°F db/15°F wb		N/A	
Mode)	Btu/h		Outdoor Air			
'	≥135,000 Btu/h		47°F db/43°F wb		N/A	
			Outdoor Air		,	
			17°F db/15°F wb	2.1 COP	N/A	
			Outdoor Air			
Matar Course	<135,000 Btu/h		Multisplit System	14 EER	N/A	
Water Source		All	86° Entering Water			
(Cooling			Multisplit System	13.8 EER	N/A	
Mode)			with Heat Recovery			
			86° Entering Water			
Water Source (Heating Mode)	<135,000 Btu/h	-	68° Entering Water	4.6 COP	N/A	

SEER—Seasonal Energy Efficiency Ratio
EER—Energy Efficiency Ratio
HSPF— Heating Seasonal Performance Factor
wb—Wet Bulb

IEER—Integrated Energy Efficiency Ratio COP—Coefficient of Performance db—Dry Bulb



*The BPA Heat Pump and VRF Specification is based on the Consortium for Energy Efficiency (CEE) Commercial Unitary Air-conditioning and Heat Pumps Specification, dated January 12, 2016. BPA is a member of the CEE High Efficiency Commercial Unitary Air-conditioning and Heat Pump Initiative. As part of this Initiative, BPA has adopted CEE's Tier 1 and Tier 2 convention, and has adopted a part-load metric in order to focus on energy efficiency savings rather than peak energy savings. More information about CEE can be found at http://www.cee1.org/

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